



Planning, NEPA, & Monitoring for Fluid Minerals Development

BLM Washington Office – Fluid Minerals Group

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The Fluid Mineral Process

A to Z

- Land Use Planning
- Leasing
- Permitting & Environmental Review
- Exploration & Production
- Abandonment and Reclamation
- Compliance and Monitoring



Why do we conduct Planning, NEPA & monitoring?

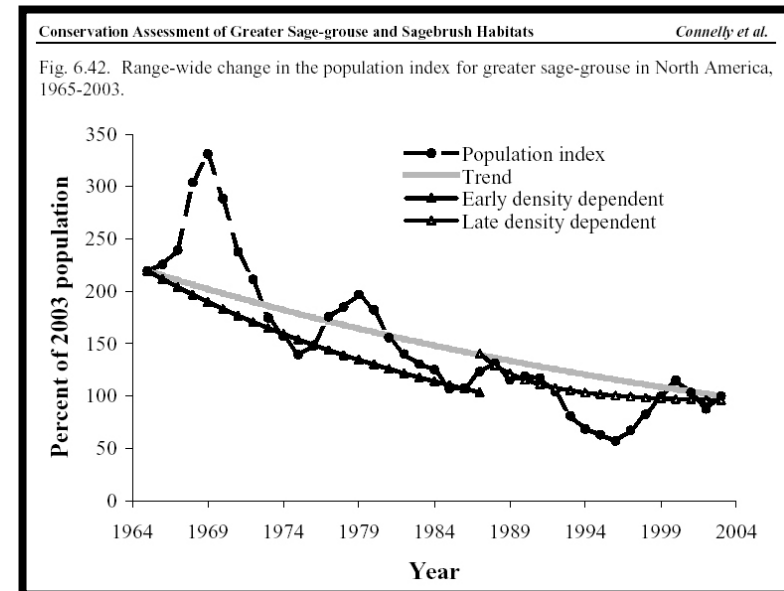
Resources to Manage

Sage Grouse



Status of the Species

The US Fish & Wildlife Service is currently in the process of reviewing petitions requesting that the Greater Sage Grouse be listed as an endangered species.



Relevant Instruction Memorandums

- **WO-IM-2003-234** Integration of the EPCA Inventory Results into Oil and Gas Exploration and Development

Use Authorizations. (Exceptions; Monitor; Stip. Effective?)

- **WO-IM-2003-233** Integration of the EPCA Inventory Results into the

Land Use Planning Process. (Review & Update Stips.)

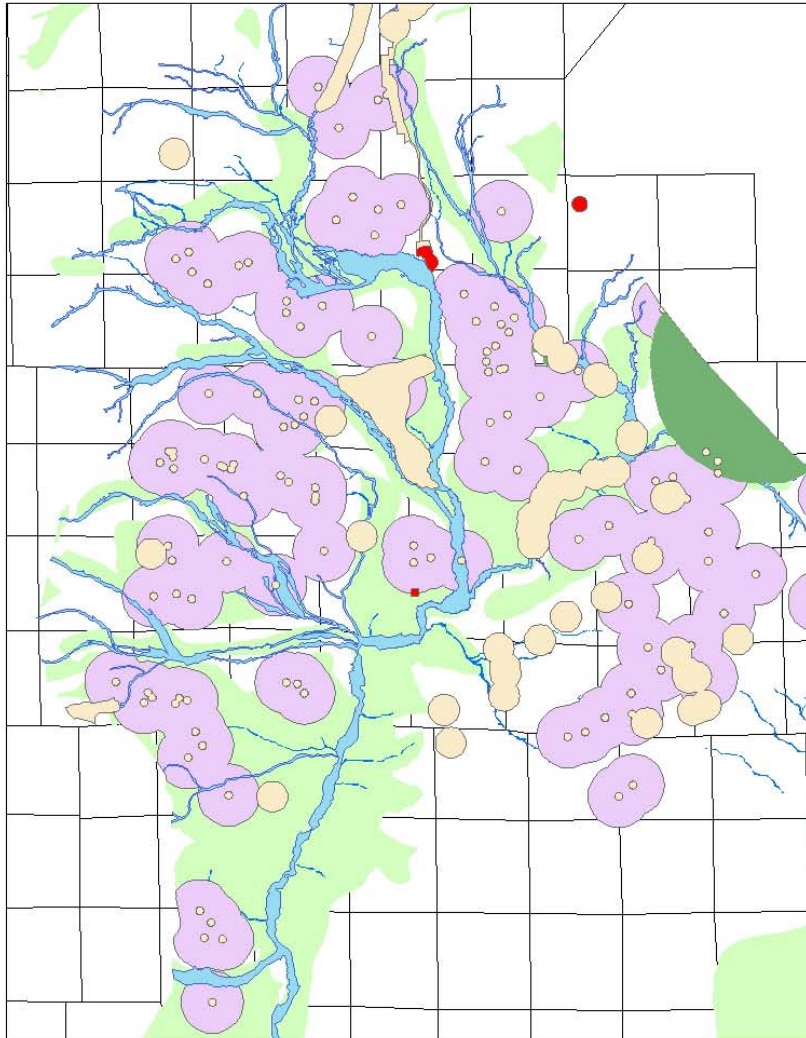
- **WO-IM-2003-152 & 147** APD - Process Improvement

Comprehensive Strategies (APD & Cultural)

Land Use Plan Decisions

- Areas **Closed** to Leasing
 - Areas **Open** to Leasing subject to:
 - Terms and Conditions of the **Standard Lease Form** (Note: Section 6)
 - **Major Constraints** (No Surface Occupancy)
 - **Minor Constraints** (Timing Limitations; Controlled Surface Use)
- Lease stipulations establish authority for substantial delay, site changes, or denial of operations within the terms of the lease contract. (Otherwise, use APD COAs)

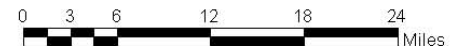
RMP Leasing Stipulations



Oil and Gas Lease Stipulations

Legend

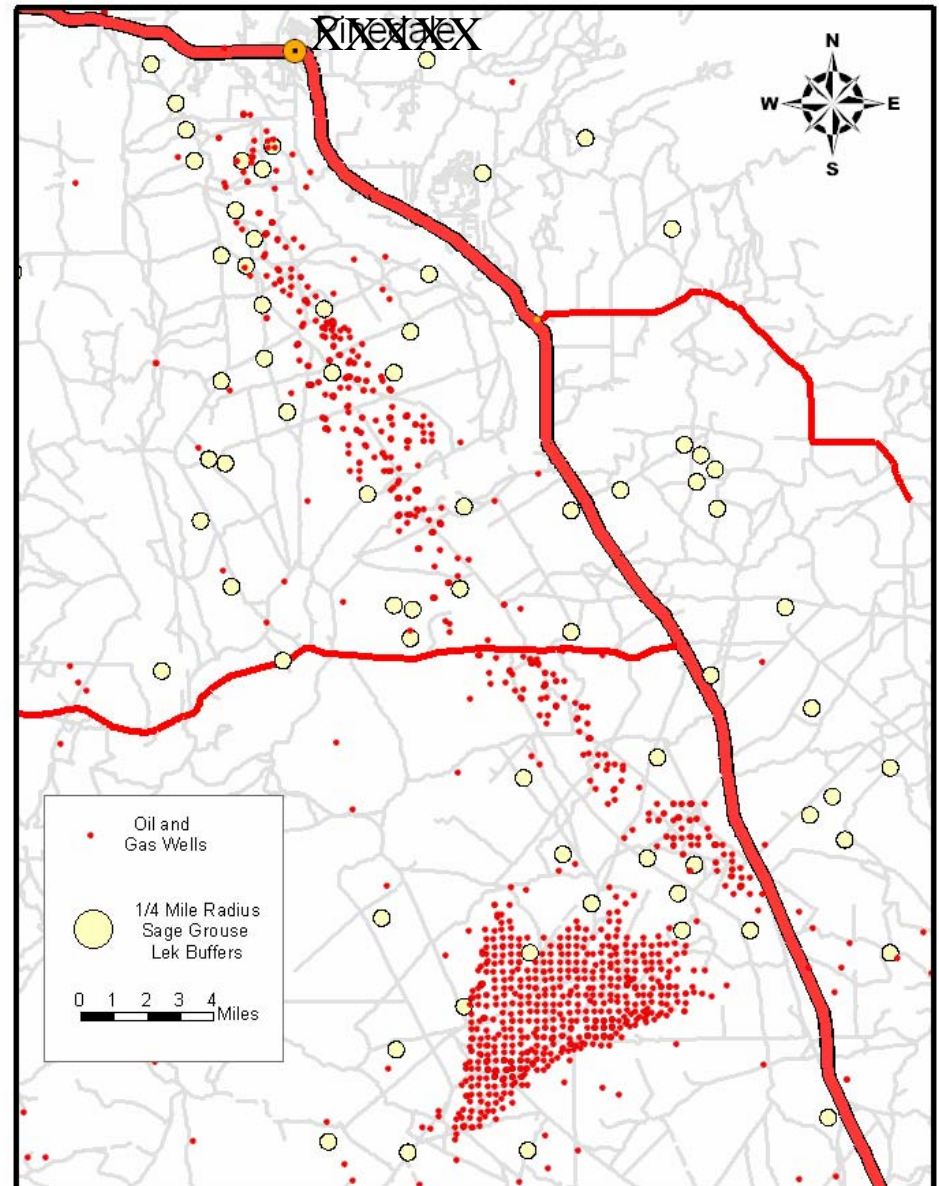
- NSO - National Register Sites
- CSU - Sage Grouse, Raptors, ACEC
- NSO - Campgrounds
- NSO - Flood Hazard or Perennial Water
- TLS - Sage Grouse Nesting
- CSU - Flood Hazard
- TLS - Big Game Winter Range
- Townships



Sage Grouse Lek Buffers

“No Surface
Occupancy”
Lease
Stipulation

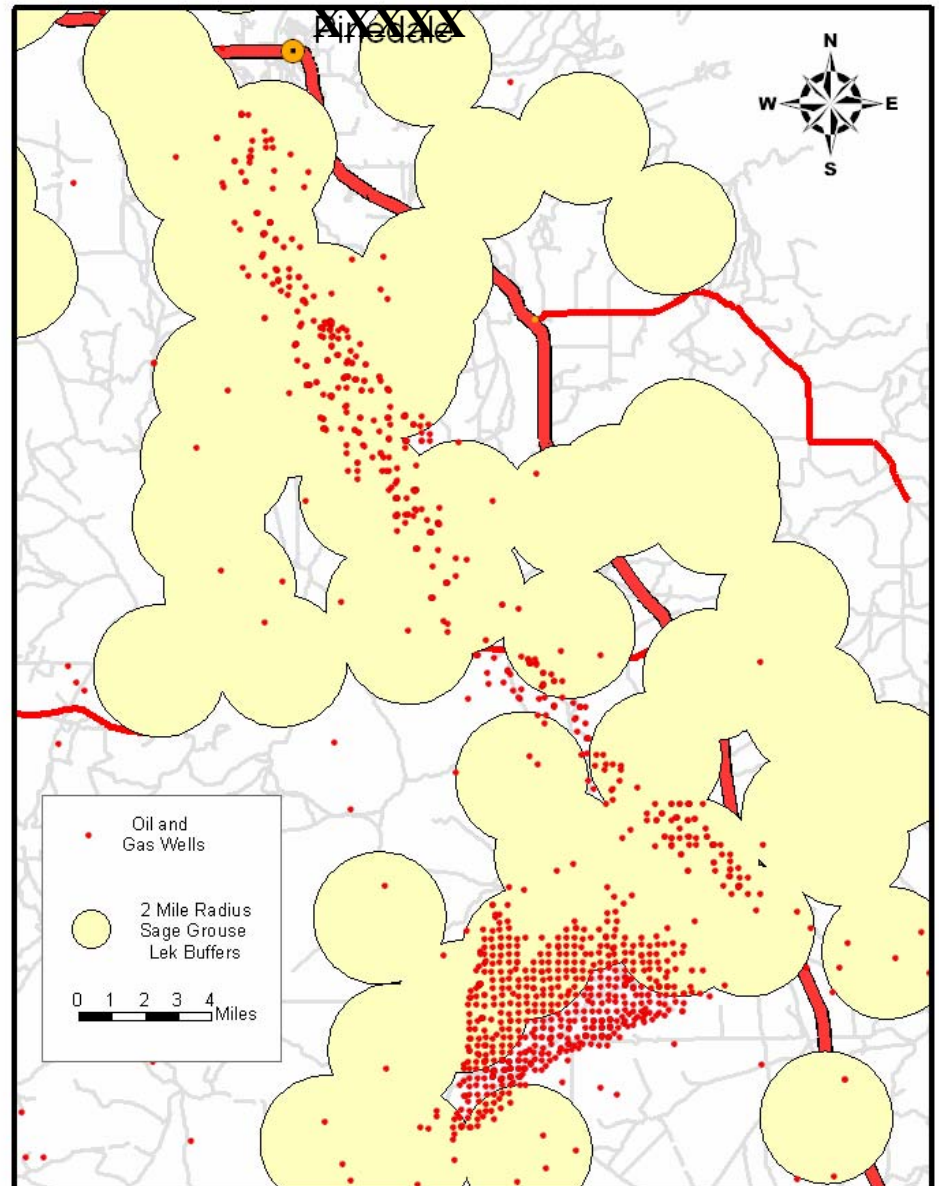
$\frac{1}{4}$ Mile Radius



Sage Grouse Lek Buffers

“Timing
Limitation”
Lease
Stipulation

2 Mile Radius



Lease Stipulations

Exceptions, Waivers, Modifications

(Adaptive Management.)

- Lease stipulations identified in the land use plan must have **Exception, Waiver, and Modification** criteria.
- **Exceptions** – One time exemption (most common)
- **Waiver** – Permanent exemption (rare)
- **Modification** – Changed provisions (rare)

Considerations?

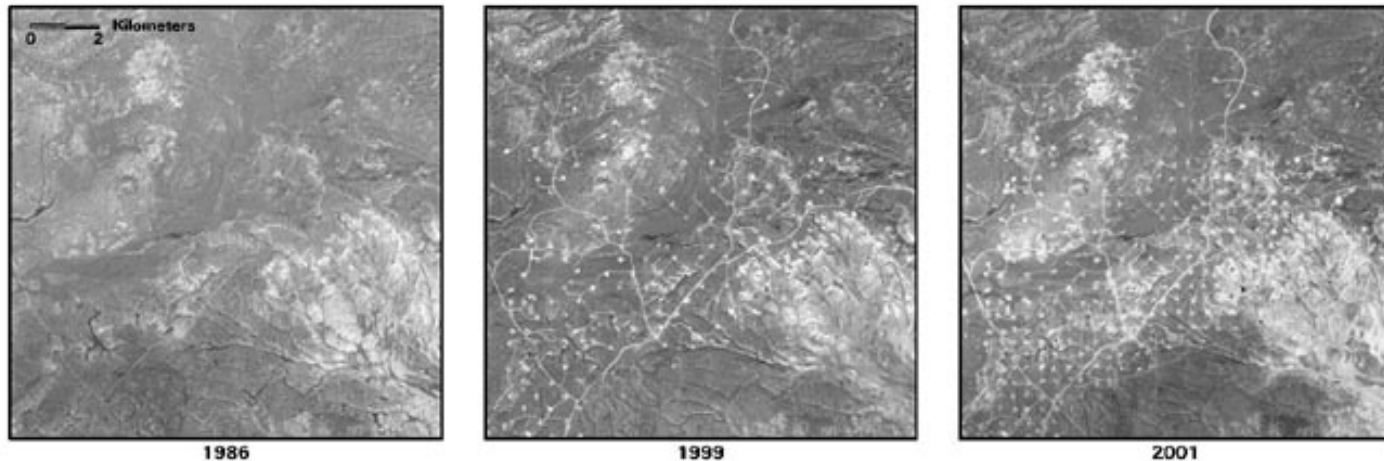
- The lease stipulation was designed at one point in time to avoid impacts to a specific resource at that point in time.

- Have circumstances or technologies changed since the Plan was written?

- Is the resource we are trying to protect still present? Or is it now present in a new area?

Other Land Use Planning Considerations

- Reasonably Foreseeable Development



Photos by: Sky Truth

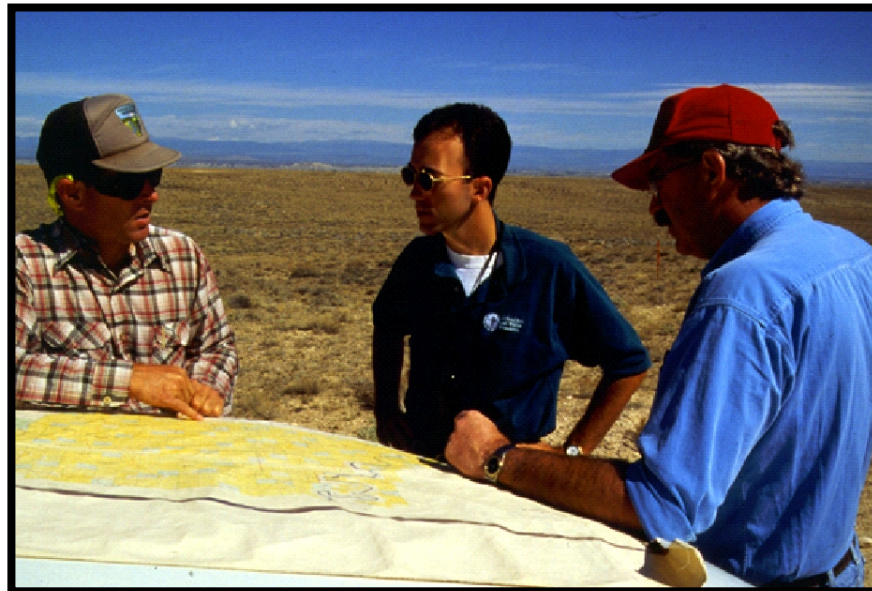
- Do new Plan requirements apply to Geophysical Exploration?
- Do new requirements apply to existing leases?

The Lease Sale

1. Public nominates parcels.
2. State Office forwards parcel list to Field Office for Review.
3. Field Office documents review with Documentation of NEPA Adequacy (DNA).
4. State Office attaches appropriate lease stipulations to parcels.
5. 45-day public review.
6. Competitive Sale

Pre-Application Meeting

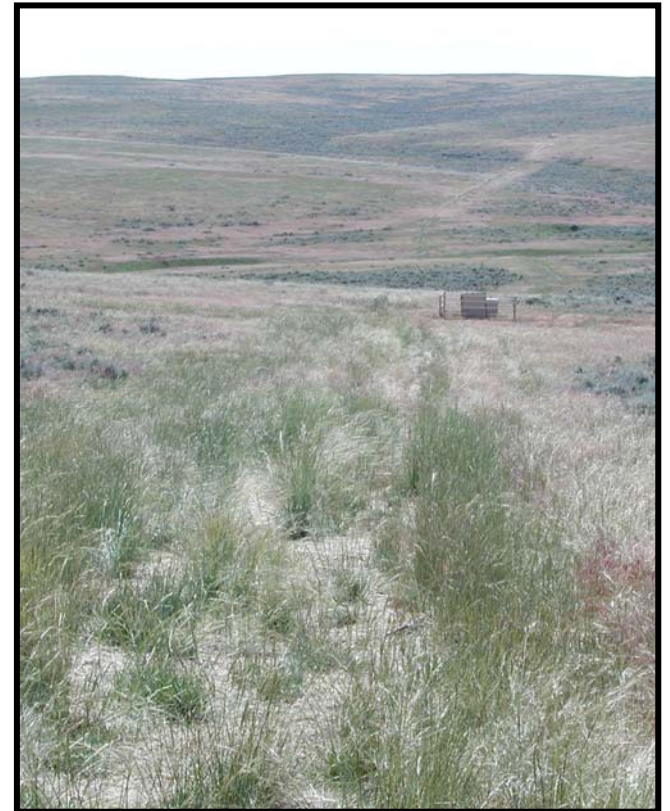
- Operator's general plans for development;
- Lease Requirements;
- Resources in need of protection;
- Best Management Practices (BMPs);
- Steps to efficient APD processing.



The APD Process

**An operator submitted
APD
containing BMPs
makes NEPA
E-A-S-Y**





Approval of the APD

- Conditions of Approval (COAs) ← **BMPs**

The background of the slide is a photograph of an oil pumpjack (a pumpjack) in a desert landscape. The pumpjack is a large, yellow, mechanical device used for extracting oil from the ground. It is situated in a dry, arid environment with sparse, low-lying vegetation. In the distance, there are rolling hills and a clear sky. The overall scene is a typical oil field in a desert region.

Operations

- Inspection and Enforcement (I&E)

What is Adaptive Management?

Predict – Design - Implement – Monitor - Adjust

Adaptive management is a system of management practices based on **clearly identified outcomes, monitoring to determine if management actions are meeting outcomes, and, if not, facilitating management changes that will best ensure that outcomes are met** or to re-evaluate the outcomes.
(OEPC ESMO3-6)

Why Adaptive Management?

- Uncertainty of the final nature of the project proposal.
- Uncertainty of the project impacts.
- Uncertainty about mitigation effectiveness.
- **Provides the opportunity to expedite decision-making without answers to all of the questions above.**
- Provides maximum flexibility to adjust to unanticipated impacts.

MONITORING

To Evaluate....

- **Land Use Plan** **Lease Stipulations**
- **APD** **Conditions of Approval**
- **New BMPs**
 - Are they necessary?
 - Are they effective?
- **Also, Adaptive Management** **Mitigation**
 - Is it working?



What types of Monitoring?

- Compliance
- Effectiveness
- Validation

What do we Monitor?

- Indicators
- Methods
- Thresholds



How often do we monitor and what do we do with the information?

- Frequency
- Conclusions
- Documentation
- Adjustment



Compliance Monitoring



Effectiveness Monitoring



Validation Monitoring

What were we thinking?

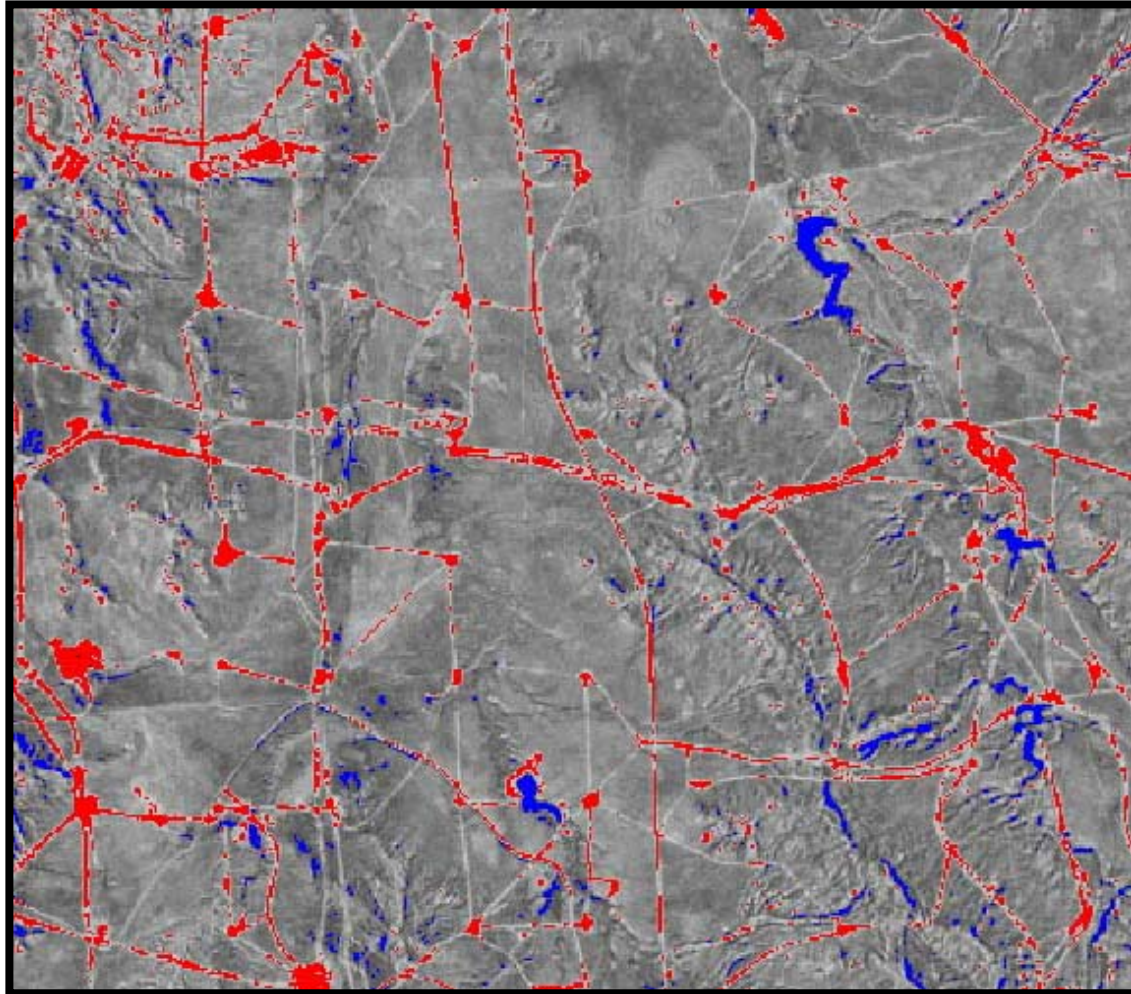


Are research based decisions still valid?

Indicators



Methods



Example of 1994-2001 Automated Change Extraction

Thresholds



Trend

Resources at Pre-Development:

Wildlife; Soils; Water; Air; Recreation; Visual; Vegetation; Grazing; etc.



Resources at Energy Development Phase:

Energy; Wildlife; Soils; Water; Air; Recreation; Visual; Vegetation; Grazing; etc.



Resources at Field Abandonment Phase:

Wildlife; Soils; Water; Air; Recreation; Visual; Vegetation; Grazing; etc.



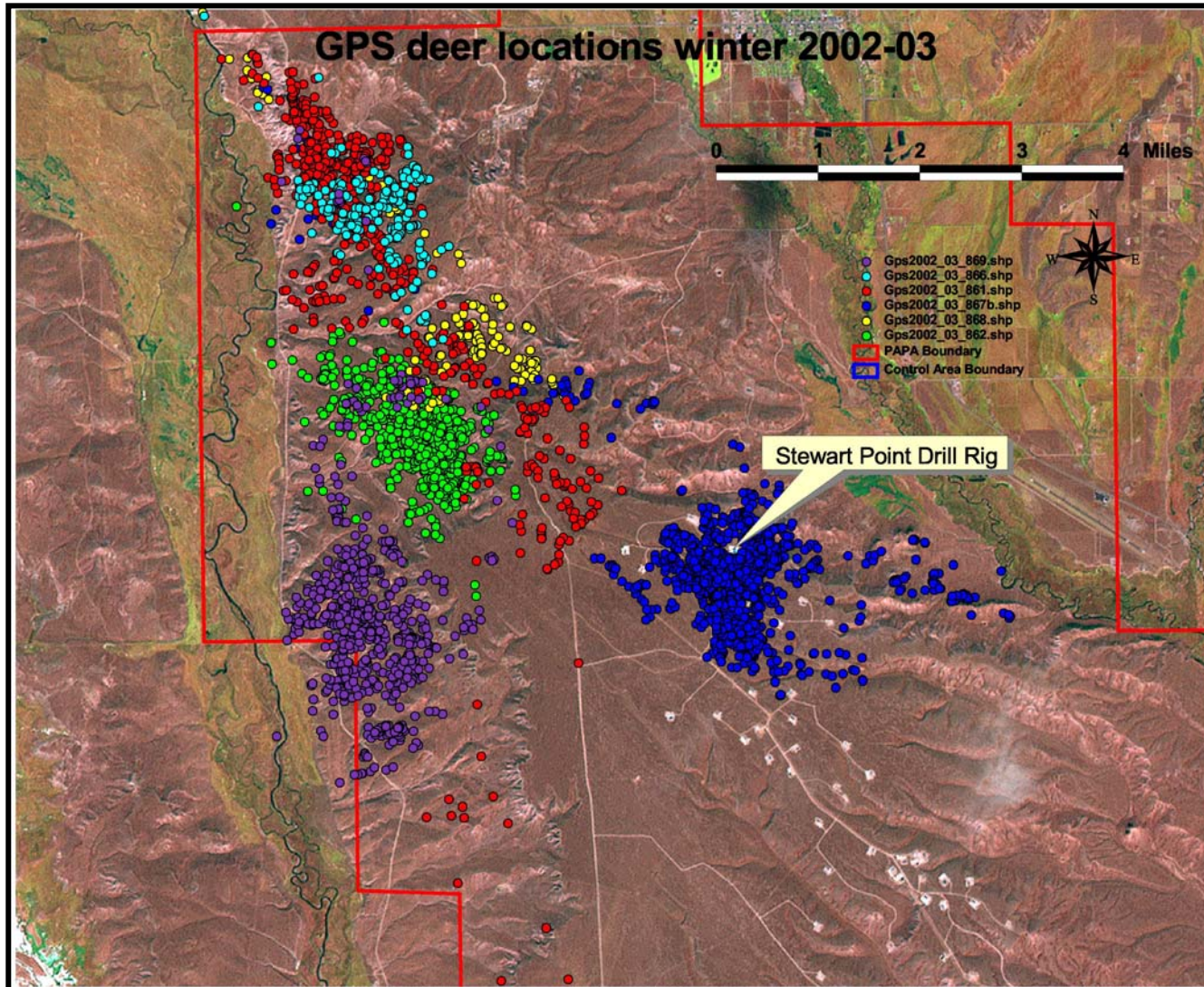
(Over time, nearly all traces of energy development should be erased.)

Frequency of Monitoring



Conclusions

Monitoring deer populations within winter range during drilling operations.



Did the deer avoid the winter drilling?

Documentation



“If it isn’t documented, it didn’t happen.”

Adjustment

The Adaptive Part of Adaptive Management

It worked or it didn't. What do we do now?



Future - Adjust:

- Lease Stipulations
- Conditions of Approval

Current:

- Negotiations
- Order Letters
- Grant Relief

Rangeland Monitoring Plot

